



Contribution ID: 3

Type: **not specified**

## Searching for BSM solar neutrino interactions using directional detectors

*Sunday 16 November 2025 09:00 (18 minutes)*

In this talk, I explore the potential of future small-scale gas TPCs with directional ability to probe neutrino interactions beyond the standard model. Working in the framework of non-standard neutrino interactions (NSI), we calculate combined energy-angle distributions of electron and nucleus recoils by solar neutrinos to place constraints on NSI parameters. We estimate that with realistic background reduction, a  $30m^3$  detector could reach sensitivities comparable to Borexino.

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**Session Classification:** Parallel 1: Neutrinos